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**PATENT**

Applicant: **Epstein**

Serial No.:

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Title: **METHOD OF APPLYING  
COMPOSITION TO A  
SURFACE**

Examiner:

Group Art Unit:

Atty Docket No.: **20450-53**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**PRELIMINARY AMENDMENT**

Commissioner of Patents  
Washington, D.C. 20231

Sir:

This preliminary amendment is being made contemporaneously with the filing of the above-identified application. Please amend the above-identified application as outlined below.

**In The Claims:**

Please cancel claims 30-35, 38-43, 48-54 and 56-57 without prejudice or disclaimer and add claims 58-75 as follows:

58. A method of applying an adhesive to a work surface, comprising:  
controllably applying suction to said work surface;  
applying an adhesive flow to said work surface; and  
removing excess adhesive from said work surface with said suction.

59. The method of claim 58 wherein said adhesive comprises a multiple component material.

60. The method of claim 59 wherein said multiple component material is a fibrinogen tissue adhesive.

61. The method of claim 58 wherein said work surface comprises a mammalian tissue.

62. A method of applying an adhesive to a work surface, comprising:  
providing an adhesive applicator comprising at least one reservoir to store said adhesive, a dispensing actuator in communication with said at least one reservoir, and a suction actuator in communication with a suction source;  
actuating said suction actuator to controllably apply suction to said work surface;  
actuating said dispensing actuator to apply a dispensing pressure to said at least one reservoir;  
effecting an adhesive flow;  
applying said adhesive flow to said work surface;  
releasing said dispensing actuator to terminate the application of said dispensing pressure to said at least one reservoir;  
terminating said adhesive flow; and  
actuating said suction actuator to controllably apply suction to said work surface to remove residual adhesive from said work surface.

63. The method of claim 62 further comprises:  
providing an applicator having at least two reservoirs containing at least two adhesive components;  
applying an equal dispensing pressure to each of said at least two reservoirs;  
effecting a flow of at least two adhesive components; and  
mixing said at least two components to form a multiple component material within said applicator.

64. The method of claim 63 wherein said applicator further comprises a mixing tip in communication with each of said at least two reservoirs and said dispensing actuator.

65. The method of claim 62 further comprising applying said dispensing pressure at discreet intervals.

66. The method of claim 62 wherein said adhesive is a fibrinogen tissue adhesive.

67. The method of claim 62 wherein said work surface comprises a mammalian tissue.

68. A method of applying a multiple component adhesive to a work surface, comprising:

providing an adhesive applicator comprising at least two reservoirs to separately store said adhesive components, a dispensing actuator in communication with said at least two reservoirs, a suction actuator in communication with a suction source, and a mixing tip in communication with said at least two reservoirs;

actuating said dispensing actuator to apply a dispensing pressure to said at least two reservoirs;

effecting a flow of each of said adhesive components;

mixing said adhesive components to form a mixed adhesive;

applying said mixed adhesive to said work surface;

releasing said dispensing actuator to terminate the application of said dispensing pressure to said at least two reservoirs;

terminating said flow of each of said adhesive components; and

actuating said suction actuator to controllably apply suction to said work surface to remove residual mixed adhesive from said work surface.

69. The method of claim 68 wherein said mixing further comprises:

providing a mixing head comprising a dispensing tip in communication with a mixing channel, said mixing channel in communication with at least two channels in communication with said at least two reservoirs;

receiving each of said adhesive components from said at least two channels in said mixing channel;

mixing said adhesive components to within said mixing channel; and

applying said mixed adhesive from said dispensing tip to said work surface.

70. The method of claim 69 further comprising providing a suction channel in communication with said suction source.

71. The method of claim 70 further comprising positioning said suction channel proximate to said dispensing tip.
72. The method of claim 68 further comprising applying said dispensing pressure at discreet intervals.
73. The method of claim 68 wherein said adhesive is a fibrinogen tissue adhesive.
74. The method of claim 68 wherein said work surface comprises a mammalian tissue.
75. The method of applying multiple component fibrinogen tissue adhesive to a work surface, comprising:
- providing an adhesive applicator comprising:
    - a) at least two reservoirs to separately store adhesive components;
    - b) a dispensing actuator in communication with said at least two reservoirs;
    - c) a suction actuator in communication with a suction source; and
    - d) a mixing head in communication with said at least two reservoirs, said mixing head having a dispensing tip in communication with a mixing channel, said mixing channel in communication with at least two channels, said at least two channels in communication with said at least two reservoirs, and a suction channel in communication with said suction source;
  - actuating said dispensing actuator to apply a dispensing pressure to said at least two reservoirs;
  - effecting a flow of each of said adhesive components within said at least two channels;
  - receiving within said mixing channel said flow of said adhesive components from said at least two channels;
  - mixing said adhesive components within said mixing channel to form a mixed adhesive;
  - applying said mixed adhesive from said dispensing tip to said work surface;
  - releasing said dispensing actuator to terminate the application of said dispensing pressure to said at least two reservoirs;

terminating said flow of each of said adhesive components within said at least two channels; and

actuating said suction actuator to controllably apply suction from said suction channel to said work surface to remove residual mixed adhesive from said work surface.

**Remarks**

By way of this Preliminary Amendment, original claims 30-35, 38-43, 48-54 and 56-57 are canceled. Applicant respectfully requests examination of these claims.

The Commissioner is authorized to charge any fee which may be required in connection with this Preliminary Amendment to deposit account No. 50-1901.

Respectfully submitted,

Dated: Feb. 5, 2002

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